

t81_fvaluat1
(TMd1MDL5AJMLEJtnzffcTonLArYHN55UCQM)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v1_realset2 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_fvaluat1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_fvaluat1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_ideal_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_ideal_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_ideal_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k8_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v3_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v3_group_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge \\ & (v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge (l6_algstr_0 \\ & X0)))))))))) \Rightarrow (\forall X1. (m1_fvaluat1 X1 X0) \Rightarrow ((v3_fvaluat1 \\ & X0) \Rightarrow (\forall X2. ((\neg v1_xboole_0 X2) \wedge ((v1_subset_1 X2 (u1_struct_0 \\ & (k7_fvaluat1 X0 X1))) \wedge ((v1_ideal_1 X2 (k7_fvaluat1 X0 X1))) \wedge ((\\ & v2_ideal_1 X2 (k7_fvaluat1 X0 X1))) \wedge ((v3_ideal_1 X2 (k7_fvaluat1 \\ & X0 X1))) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 (k7_fvaluat1 \\ & X0 X1)))))))))) \Rightarrow (r1_tarski X2 (k8_fvaluat1 X0 X1)))))) \quad (2) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge (v3_group_1 X0) \wedge (v5_vectsp_1 X0) \wedge (v2_rlvect_1 X0) \wedge \\ & (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge (l6_algstr_0 \\ & X0)))))) \Rightarrow (\forall X1.(m1_fvaluat1 X1 X0) \Rightarrow ((v3_fvaluat1 \\ & X0) \Rightarrow (v1_subset_1 (k8_fvaluat1 X0 X1) (u1_struct_0 (k7_fvaluat1 \\ & X0 X1)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge (v3_group_1 X0) \wedge (v5_vectsp_1 X0) \wedge (v2_rlvect_1 X0) \wedge \\ & (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge (l6_algstr_0 \\ & X0)))))) \Rightarrow (\forall X1.(m1_fvaluat1 X1 X0) \Rightarrow ((v3_fvaluat1 \\ & X0) \Rightarrow (k4_struct_0 X0 \in k8_fvaluat1 X0 X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge \\ & ((v13_algstr_0 X0) \wedge (v3_group_1 X0) \wedge (v5_vectsp_1 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge \\ & (l6_algstr_0 X0)))))) \wedge (m1_fvaluat1 X1 X0)) \Rightarrow ((\neg v1_xboole_0 \\ & (k8_fvaluat1 X0 X1)) \wedge ((v1_ideal_1 (k8_fvaluat1 X0 X1) (k7_fvaluat1 \\ & X0 X1)) \wedge ((v2_ideal_1 (k8_fvaluat1 X0 X1) (k7_fvaluat1 X0 X1)) \wedge \\ & ((v3_ideal_1 (k8_fvaluat1 X0 X1) (k7_fvaluat1 X0 X1)) \wedge (m1_subset_1 \\ & (k8_fvaluat1 X0 X1) (k1_zfmisc_1 (u1_struct_0 (k7_fvaluat1 X0 \\ & X1))))))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge \\ & ((v13_algstr_0 X0) \wedge (v3_group_1 X0) \wedge (v5_vectsp_1 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge \\ & (l6_algstr_0 X0)))))) \wedge (m1_fvaluat1 X1 X0)) \Rightarrow ((\neg v2_struct_0 \\ & (k7_fvaluat1 X0 X1)) \wedge ((\neg v6_struct_0 (k7_fvaluat1 X0 X1)) \wedge ((v13_algstr_0 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v36_algstr_0 (k7_fvaluat1 X0 X1)) \wedge ((v3_group_1 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v5_group_1 (k7_fvaluat1 X0 X1)) \wedge ((v4_vectsp_1 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v5_vectsp_1 (k7_fvaluat1 X0 X1)) \wedge ((v2_rlvect_1 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v3_rlvect_1 (k7_fvaluat1 X0 X1)) \wedge ((v4_rlvect_1 \\ & (k7_fvaluat1 X0 X1)) \wedge (l6_algstr_0 (k7_fvaluat1 X0 X1))))))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v3_ring_1 \\
& X1 X0) \Leftrightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge ((v1_ideal_1 X2 X0) \wedge ((\\
& v2_ideal_1 X2 X0) \wedge ((v3_ideal_1 X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
& (u1_struct_0 X0)))))) \Rightarrow (\neg(r1_tarski X1 X2) \wedge ((X2 \neq X1) \wedge (v1_subset_1 \\
& X2 (u1_struct_0 X0))))))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v4_ring_1 \\
& X1 X0) \Rightarrow ((v1_subset_1 X1 (u1_struct_0 X0)) \wedge (v3_ring_1 X1 X0)))
\end{aligned} \tag{8}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\
& X0) \wedge ((v3_group_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge (\\
& (v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge (l6_algstr_0 \\
& X0))))))))) \Rightarrow (\forall X1.(m1_fvaluat1 X1 X0) \Rightarrow ((v3_fvaluat1 \\
& X0) \Rightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge ((v1_ideal_1 X2 (k7_fvaluat1 \\
& X0 X1)) \wedge ((v2_ideal_1 X2 (k7_fvaluat1 X0 X1)) \wedge ((v3_ideal_1 X2 (\\
& k7_fvaluat1 X0 X1)) \wedge ((v4_ring_1 X2 (k7_fvaluat1 X0 X1)) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (u1_struct_0 (k7_fvaluat1 X0 X1))))))))) \Rightarrow (X2 = \\
& k8_fvaluat1 X0 X1)))
\end{aligned}$$